$\overline{}$				
U	ra	ct	$\sim$	$\triangle$
	-			$\overline{}$

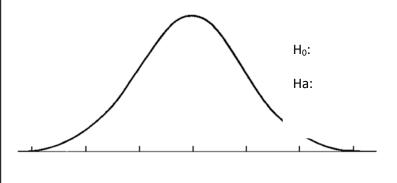
2. The mean life of iPhone batteries is less than 2 years.
Hypotheses:
Tail direction (explain):
Potential Errors:

# 7.1 Part 2: Hypothesis Testing

## **Hypothesis Tests and P-values**

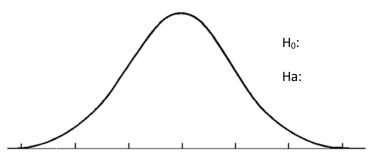
	Population Parameter	Test Statistic	Standardized Test Statistic
Proportions			
Means			
Variance			

If your alternative is less than the null hypothesis..

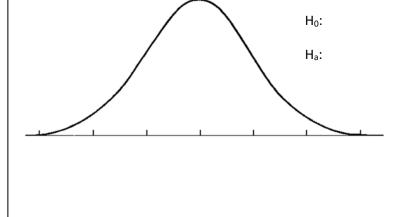


# Hypothesis Tests and P-Values

If your alternative is greater than the null hypothesis...



If your alternative is not equal to the null hypothesis...



#### Practice

State your hypotheses and identify your claim. Determine if the test is left-tailed, right-tailed, or two-tailed. State your potential type 1 and type 2 errors.

1. **Texting while driving** The proportion of high school students who text while driving is 78%.

Hypotheses:

Tail direction (explain):

**Potential Errors:** 

## P-Values

A **small** p-value is considered an **unusual** event. This gives us more evidence to **reject** the  $H_0$ .

## 7 Steps to Perform a Hypothesis Test

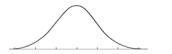
1.

2.

3.



4.





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## Practice

3. The proportion of teens that make more than \$8.50 an hour is less than 29%.

Hypotheses:

Tail direction (explain):

**Potential Errors:**